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GP268



780.29643CX1

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Thomas J. CAMPANA, Jr. et al

Serial No.: 08/443,430

Filed: May 18, 1995

For: ELECTRONIC MAIL SYSTEM WITH RF COMMUNICATIONS TO MOBILE PROCESSORS

Group: 2608

Examiner: G. Oehling

#7 / Suppl. Amndt D  
 R. Morgan  
 2/5/96

SUPPLEMENTAL AMENDMENT

Honorable Commissioner of  
 Patents and Trademarks  
 Washington, D. C. 20231

December 29, 1995

Sir:

This Amendment is supplemental to the Amendment of  
 December 27, 1995.

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 GROUP 00

IN THE CLAIMS:

Please add new claims 199-222 as follows:

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cont.

199. A system for transmitting originated information from one of a plurality of originating processors contained in an electronic mail system to at least one RF receiver with the originated information originating from one of the plurality of originating processors and being transmitted by an RF information transmission network to the at least one RF receiver and for transmitting other originated information originating from one of the originating processors and being transmitted through a wireline without using the RF

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information transmission network to at least one of the destination processors comprising:

at least one interface switch, one of the at least one interface switch connecting the electronic mail system containing the plurality of originating processors to the RF information transmission network; and wherein

the originated information is transmitted from the one of the at least one interface switch to the RF information transmission network with an address of the at least one RF receiver to receive the originated information being added at the originating processor originating the originated information, or by either the electronic mail system that contains the plurality of originating processors or the one interface switch.

<sup>114</sup>  
~~200~~. A system in accordance with claim <sup>113</sup>~~199~~ wherein:

one of the plurality of destination processors is coupled to one of the at least one RF receiver and receives the originated information.

<sup>115</sup>  
~~201~~. A system in accordance with claim <sup>113</sup>~~199~~ wherein:

the electronic mail system containing the plurality of destination processors is the same electronic mail system containing the plurality of originating processors.

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<sup>116</sup>  
~~202.~~ A system in accordance with claim <sup>113</sup>~~199~~ wherein:

the electronic mail system containing the plurality of destination processors is a different electronic mail system than the electronic mail system containing the plurality of originating processors.

<sup>117</sup>  
~~203.~~ A system in accordance with claim <sup>113</sup>~~199~~ wherein:

the one interface switch stores the originated information, assembles the originated information with originated information received from a plurality of the originating processors into a packet and transmits the packet to the RF transmission network.

<sup>118</sup>  
~~204.~~ A system in accordance with claim <sup>113</sup>~~199~~ wherein:

the wireline transmitting the other originated information between the one of the plurality of originating processors and the at least one of the plurality of destination processors uses one of either a public or private switch telephone network with the at least one of the plurality of destination processors being addressed during transmission of the other originated information to the at least one of the plurality of destination processors when using the public or private switch telephone network with a different address than the address used during transmission of the originated information to the at least one RF receiver by the RF information transmission network.

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205. A method for transmitting originated information from one of a plurality of originating processors contained in an electronic mail system to at least one RF receiver with the originated information originating from one of the plurality of originating processors and being transmitted by an RF information transmission network to the at least one RF receiver and for transmitting other originated information originating from one of the originating processors and being transmitted through a wireline without using the RF information transmission network to at least one of the destination processors comprising:

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cont

connecting the electronic mail system containing the plurality of originating processors to the RF information transmission network with one of at least one interface switch; and

transmitting the originated information from the one of the at least one interface switch to the RF information transmission network with an address of the at least one RF receiver to receive the originated information being added at the originating processor originating the originated information, or by either the electronic mail system that contains the plurality of originating processors or the one interface switch.

<sup>120</sup>  
~~206~~. A method in accordance with claim <sup>119</sup>~~205~~ further comprising:

one of the at least one RF receiver transmits the originated information to one of the plurality of destination processors.

<sup>121</sup>  
~~207~~. A method in accordance with claim <sup>119</sup>~~205~~ wherein:

the electronic mail system containing the plurality of destination processors is the same electronic mail system containing the plurality of originating processors.

<sup>122</sup>  
~~208~~. A method in accordance with claim <sup>119</sup>~~205~~ wherein:

the electronic mail system containing the plurality of destination processors is a different electronic mail system than the electronic mail system containing the plurality of originating processors.

<sup>123</sup>  
~~209~~. A method in accordance with claim <sup>119</sup>~~205~~ wherein:

the one interface switch stores the originated information, assembles the originated information with originated information received from a plurality of the originating processors into a packet and transmits the packet to the RF transmission network.

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210.

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205 wherein:

the wireline transmitting the other originated information between the one of the plurality of originating processors and the at least one of the plurality of destination processors uses one of either a public or private switch telephone network with the at least one of the plurality of destination processors being addressed during transmission of the other originated information to the at least one of the plurality of destination processors when using the public or private switch telephone network with a different address than the address used during transmission of the originated information to the at least one RF receiver by the RF information transmission network.

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211. A system for transmitting originated information from one of a plurality of originating processors contained in an electronic mail system to at least one RF receiver with the originated information originating from one of the plurality of originating processors and being transmitted by an RF information transmission network to the at least one RF receiver and for transmitting other originated information originating from one of the originating processors and being transmitted through a wireline without using the RF information transmission network to at least one of the destination processors comprising:

at least one interface switch, one of the at least one interface switch connecting the electronic mail system

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containing the plurality of originating processors to the RF information transmission network; and wherein

the originated information is transmitted from the one of the at least one interface switch to the RF information transmission network with an address of the at least one of RF receiver to receive the originated information being added to the originated information before transmission of the originated information by the RF information transmission network to the at least one RF receiver.

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212.

A system in accordance with claim <sup>125</sup>211 wherein:

one of the plurality of destination processors is coupled to one of the at least one RF receiver and receives the originated information.

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213.

A system in accordance with claim <sup>125</sup>211 wherein:

the electronic mail system containing the plurality of destination processors is the same electronic mail system containing the plurality of originating processors.

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214. A system in accordance with claim <sup>125</sup>211 wherein:

the electronic mail system containing the plurality of destination processors is a different electronic mail system than the electronic mail system containing the plurality of originating processors.

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215. A system in accordance with claim <sup>125</sup>211 wherein:

the one interface switch stores the originated information, assembles the originated information with originated information received from a plurality of the originating processors into a packet and transmits the packet to the RF transmission network.

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216. A system in accordance with claim <sup>125</sup>211 wherein:

the wireline transmitting the other originated information between the one of the plurality of originating processors and the at least one of the plurality of destination processors uses one of either a public or private switch telephone network with the at least one of the plurality of destination processors being addressed during transmission of the other originated information to the at least one of the plurality of destination processors when using the public or private switch telephone network with a different address than the address used during transmission of the originated information to the at least one RF receiver by the RF information transmission network.

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cont.

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217. A method for transmitting originated information from one of a plurality of originating processors contained in an electronic mail system to at least one RF receiver with the originated information originating from one of the plurality of originating processors and being transmitted by an RF information transmission network to the at least one



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RF receiver and for transmitting other originated information originating from one of the originating processors and being transmitted through a wireline without using the RF information transmission network to at least one of the destination processors comprising:

connecting the electronic mail system containing the plurality of originating processors to the RF information transmission network with one of at least one interface switch; and

transmitting the originated information from the one of the at least one interface switch to the RF information transmission network with an address of the at least one RF receiver to receive the originated information being added to the originated information before transmission of the originated information by the RF transmission network to the at least one RF receiver.

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218.

A method in accordance with claim 217 further comprising:

one of the at least one RF receiver transmits the originated information to one of the plurality of destination processors.

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219.

A method in accordance with claim 217 wherein:

the electronic mail system containing the plurality of destination processors is the same electronic mail system containing the plurality of originating processors.

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220. A method in accordance with claim 217 wherein:

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the electronic mail system containing the plurality of destination processors is a different electronic mail system than the electronic mail system containing the plurality of originating processors.

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221. A method in accordance with claim 217 wherein:

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the one interface switch stores the originated information, assembles the originated information with originated information received from a plurality of the originating processors into a packet and transmits the packet to the RF transmission network.

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222. A method in accordance with claim 217 wherein:

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the wireline transmitting the other originated information between the one of the plurality of originating processors and the at least one of the plurality of destination processors uses one of either a public or private switch telephone network with the at least one of the plurality of destination processors being addressed during transmission of the other originated information to the at least one of the plurality of destination processors when using the public or private switch telephone network with a different address than the address used during transmission of the originated information to the at least one RF receiver by the RF information transmission network.--

#### REMARKS

Newly submitted claims 199-222 have been added to cover the invention in a different degree of scope than the claims as amended on December 27, 1995.

Specifically, independent claims 199 and 205 cover a system and method of scope similar to independent claims 86 and 143 except that the destination of the originated information is to at least one RF receiver which, as disclosed, transmits the originated information to the destination processor. Dependent claims 200-204 and 206-210 cover more specific aspects of the disclosed subject matter than that covered by newly submitted independent claims 199 and 205.

Newly submitted independent claims 211 and 217 respectively cover a system and method of similar scope to independent claims 86 and 143 except that the adding of the address to the originated information is recited as being before transmission of the originated information by the RF information transmission network to the at least one RF receiver. Dependent claims 212-216 and 218-222 cover more specific aspects of the disclosed subject matter than that covered by newly submitted independent claims 211 and 217.

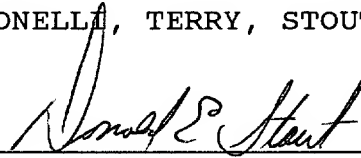
Newly submitted claims 199-222 are patentable for the same reasons that the Examiner found claims 86-141 to be patentable over the prior art in the first Office Action of November 2, 1995.

Early allowance of each of the pending claims in the above-referenced application is respectfully requested in view of the foregoing amendments and remarks and the amendments and remarks set forth in the December 27, 1995 Amendment.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, Deposit Account No. 01-2135 (780.29643CX1), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS



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Registration No. 26,422  
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DES:dlh

780.29643CX1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Thomas J. CAMPANA, Jr. et al  
Serial No.: 08/443,430  
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COMMUNICATIONS TO MOBILE PROCESSORS  
Group: 2608  
Examiner: G. Oehling

SUBMISSION OF SUBSTITUTE APPENDIX

Honorable Commissioner of  
Patents and Trademarks  
Washington, D. C. 20231

December 27, 1995

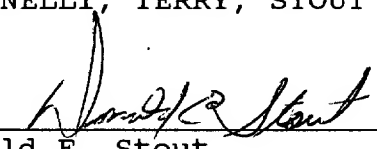
Sir:

Submitted herewith is a substitute Appendix as required by the Examiner containing pages 1-12. This Appendix is identical to the Substitute Appendix submitted in the Assignee's United States Patents 5,436,960, 5,438,611 and 5,479,472 which was approved by the Examiner.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, Deposit Account No. 01-2135 (780.29643CX1), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS

  
\_\_\_\_\_  
Donald E. Stout  
Registration No. 26,422  
(703) 312-6600

DES:dlh

"END OF TELEFIND NETWORK MESSAGE/V"

```

#include <string.h>
#include <time.h>
#include <stdio.h>
#include <dos.h>
#include "sefer1.h"

void main(void)
{
    FILE *infile,*outfile;
    char buffer[81],chr,timestr[6],datestr[9];
    char msg_num[4];
    int msg_num_opt = 0;
    char *ptr;
    int x,day,month,lines1,attmail=0;
    time_t t;

    if ((infile = fopen(ATT_EMAIL_FILE,"rt")) == NULL)
    {
        printf("%s does not exist\n",ATT_EMAIL_FILE);
        exit(0);
    }
    if ((outfile = fopen("tfmbox.SBS","wt")) == NULL)
    {
        printf("Can't open TFMBOX.SBS\n");
        exit(0);
    }

    for(;;)
    {
        /* get characters from .cmp file */
        x = 0;
        do
        {
            chr = fgetc(infile);
            if (feof(infile))
            {
                fclose(infile);
                fclose(outfile);
                exit(0);
            }
            buffer[x++] = chr;
        }
        /* until end of line */
        while (chr != '\n' && x != 80);

        buffer[x] = '\0'; /* terminate it */

        if (lines == 1)
        {
            ptr = strchr(buffer,');');
            if (ptr-buffer == 2) /* use 3rd character */
            {
                sscanf(buffer,"%i",&msg_num);
                msg_num_opt = 1;
                ptr++;
            }
            else
                ptr = buffer;

            if (*ptr == ':' && *(ptr+1) == '0')
                attmail = 1;
        }

        if (attmail)
        {
            switch(lines)

```

```

    case 1:
        /*      datestr = mm/dd, timestr = hh:mm      */
        sscanf(datestr,"%d/%d",&month,&day);
        /*      get year from pc      */

        t = time(NULL);
        fprintf(outfile,"Date: %s",ctime(&t));
        break;

    case 2:
        fprintf(outfile,"From: %s",buffer);
        break;

    case 3:
        fprintf(outfile,"Subject: %s",buffer);
        fprintf(outfile,"To: <name here>\n");
        if (msg_num_opt)
            fprintf(outfile,"Message %d\n",msg_num);
        break;

    default:
        fprintf(outfile,"%s",buffer);
        break;
}
else
{
    if (line == 1)
    {
        t = time(NULL);
        fprintf(outfile,"Date: %s",ctime(&t));
        fprintf(outfile,"From: tsmbox\n");
        fprintf(outfile,"Subject: Telefind Network Message\n");
        fprintf(outfile,"To: <name here>\n");
        if (msg_num_opt)
        {
            fprintf(outfile,"Message %d\n",msg_num);
            fprintf(outfile,"%s",buffer+3);
        }
        else
            fprintf(outfile,"%s",buffer);
    }
    else
        fprintf(outfile,"%s",buffer);
}

if (strcmp(buffer,DELIMITER) == 0)
{
    msg_num_opt = line = attmail = 0;
}

line ++;

```



```

/*
    Copyright:      1990 TELEFIND CORP.
    Author:         MICHAEL P. PONSCHKE, SR.
                   03/13/91

    Program:        BAPR13.C
    Purpose:        TO EXTRACT MESSAGES FROM A TELEFIND PAGER
                   VIA IN RS-232 PORT ON A PC

    Compiler:       TURBO C++ 1.0
    Memory Model:   SMALL
*/

```

```

#include <dos.h>
#include <stdio.h>
#include <conio.h>
#include <string.h>
#include <stdlib.h>
#include "safari.h"

```

```

/*          CONSTANTS          */

```

```

#define DTR_HI      0x01
#define DTR_LO      0xfe
#define RTS_HI      0x02
#define RTS_LO      0xfd
#define DSR_HI      0x20
#define RING_IN      0x40
#define CD_HI        0x80
#define FIVE_TICK    5
#define FIVE_SEC     96
#define TWELVE_SEC   220
#define LOG_FILE      "LOG"
#define INTRO_STRING  "Please standby, retrieving messages ..."

```

```

/*    FUNCTION PROTOTYPES    */

```

```

int beep(void);
void busyoff(void);
void busyon(void);
void dtroff(void);
void dtron(void);
int link(void);
void print_message(void);
int rxdata(void);
int strobe(void);
int strobe_data(void);
unsigned ticks(void);
int timeout(unsigned start, int delay);

```

```

/*    VARIABLE DECLARATIONS    */

```

```

char pager_buffer[511];
int com_base, control_reg, status_reg, log_flag;
FILE *log_file;

```

```

void main(int num_arg, char **args)
{

```

```

    unsigned start;
    int restart,x;

```

```

    com_base = 0x3f8; /* use com 1 unless command line denotes otherwise */

```

```

    /* get command line arguments */

```

```

/* all command line arguments begin with a single '-' and
must be separated by a single space between each other
and the program name

-1    Use COM port 1
-2    Use COM port 2
-f    Log all activity to a file named LOG */

if (num_arg > 1)
{
    for (x=1; x<num_arg; x++)
    {
        if (strcmp(args[x], "-1") == 0)
            com_base = 0x3f8;
        if (strcmp(args[x], "-2") == 0)
            com_base = 0x2f8;
        if (strcmp(args[x], "-f") == 0)
            log_flag = 1;
    }
}

if (log_flag)
    if ((log_file = fopen(LOG_FILE, "at")) == NULL)
        printf("Unable to open LOG\n");

control_reg = com_base + 4;
status_reg = com_base + 6;

clrscr();

if ((link() == 0) /* is pager attached ? */
{
    printf("Please attach Message Receiver \n");
    exit(0);
}

busyon(); /* start busy at logic high */

if (log_flag)
    fprintf(log_file, "Initiating process \n");
printf("%s\n", INTRO_STRING);
delay(); /* push display button */
sleep(2);
do
{
    start = ticks();
    restart = 0;
    do
    {
        if (beep())
        {
            print_message();
            restart = 1;
            start += TWELVE_SEC;
            break;
        }
    }
    /* hold display button for 12 seconds */
    while(1) timeout(start, TWELVE_SEC);
}
while(restart);

delay(); /* release the display button */
if (log_flag)
{
    fprintf(log_file, "Process Complete \n");
}

```

```

        fclose(log_file);
    }

}

/*      pager beep      */
int beep(void)
{
    /*      accesses the RI line via the Status Register
        which is activated when the pager beeps      */

    unsigned start;

    start = ticks();
    while ( ! timeout(start,FIVE_TICK))
    {
        if (((inportb(status_reg) & RING_IN) == 0 )
            return(1);
        }
    }
    return(0);
}

/*      busyon & busyoff toggle the DTR line via the
    Control Register to strobe in data from the pager      */

void busyoff(void)
{
    outportb(control_reg,inportb(control_reg) | DTR_HI);
}

void busyon(void)
{
    outportb(control_reg,inportb(control_reg) & DTR_LO);
}

/*      dison & disoff toggle the RTS line via the Control Register
    to simulate the pressing of the display button on the pager      */

void dison(void)
{
    outportb(control_reg,inportb(control_reg) | RTS_HI);
}

void disoff(void)
{
    outportb(control_reg,inportb(control_reg) & RTS_LO);
}

int link(void)
{
    /*      accesses the CD line via the Status Register
        which is logic high when pager is connected      */

    if (((inportb(status_reg) & CD_HI) == 0)
        return(0);
    }
    return(1);
}

void print_message(void)
{
    FILE *file;
    unsigned start;
    int x,y=0,z=0,chr,bit;
}

```

```

busyoff(); /* ready to accept pager data */
/* read until end code received */
while (chr != 3)
{
    chr = 0;
    start = ticks();

    /* wait for start bit */
    do
    {
        bit = strobe();
        if (bit == 0)
            break;
    }
    while (!timeout(start,FIVE_SEC));

    if (bit)
    {
        if (!log_flag)
            fprintf(log_file,"Transmission Error, recheck connection\n");
        disoff();
        exit(0);
    }

    /* strobe out 8 bit data */
    for (x=1; x<9; x++)
    {
        chr <= 1;
        chr += bit * strobe_data();
    }

    /* clear out stop bits */
    for (x=1; x<5; x++)
    {
        strobe_data();
    }

    /* extract start and end codes from message

    pager signon      02, 10, 00, 33
    pager signoff     03 */

    if ((y > 3) && (chr != 3))
    {
        /* pager characters 96 and 97 are converted to
        0x7A and 0x7B to display on pager */
        if (chr == 0x7a) /* convert to CR */
            chr = '\n';
        if (chr == 0x7b) /* convert to TAB */
            chr = 0x09;

        pager_buffer[z] = chr;
        z++;
    }
    y++;
}

pager_buffer[z] = '\0'; /* null terminate */
busyon(); /* finished receiving data */

```

```

if (log_file)
    fprintf(log_file, "%s\n", pager_buffer);

if ((file = fopen(ATT_EMAIL_FILE, "at")) == NULL)
    fprintf(log_file, "Unable to open TPNOCBK.TMP\n");
else
{
    fprintf(file, "%s\n", pager_buffer);
    fprintf(file, "%s", DELIMITER);
    fclose(file);
}

start = ticks();
while(timeout(start, FIVE_SEC))
{
    /* wait for erase beep */
    if (beep()) break;
}
sleep(1); /* wait one more second */
}

int radata(void)
{
    /* accesses the DSR line via the Status Register
    which returns the bits value */
    if (inportb(status_reg) & DSR_HI)
        return(0);
    return(1);
}

int strobe(void)
{
    int bit;

    busyon();
    delay(1);
    busyoff();
    delay(4);
    bit = radata();
    return(bit);
}

int strobe_data(void)
{
    int bit;

    busyon();
    delay(2);
    bit = radata();
    busyoff();
    delay(1);
    return(bit);
}

unsigned ticks(void)
{
    /* returns timer ticks (approx. 18.2/sec)
    using only lower registers */

    union REGS in, out;

    in.x.ax = 0x0;
    int86(0x10, &in, &out);
    return(out.x.dx);
}

```

```

}
int timeout(unsigned start, int delay)
{
    /*      used for timing events of up to approx. 1 hour.
        used in conjunction w/ticks()      */

    unsigned current;

    current = ticks();
    if (start <= current && (start + delay) < current)
        return(1);
    if (start > current && (start - 65535 + delay) < current)
        return(1);
    return(0);
}

```